DOCUMENT RESUME

ED 329 234 IR 014 880

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TITLE Technology in Distance Education: Future and Issues.
PUB DATE Oct 90
NOTE 13p.; Keynote address delivered at the International Conference on Educational Technology: The Future (New Delhi, India, October 31-November 3, 1990).
PUB TYPE Information Analyses (070) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Developing Nations; *Distance Education; Economically Disadvantaged; Economic Development; *Educational Change; *Educational Development; Educational Radio; *Educational Technology; Elementary Secondary Education; Environmental Education; Foreign Countries; Higher Education; Information Technology; *Poverty Programs; Technological Advancement; Womens Education

ABSTRACT

The primary beneficiaries of human resource development decisions ought to be the underprivileged members of developing societies. However, the sweeping changes that have occurred in the Soviet Union and Eastern Europe and in developing nations, have not included progress in the field of education. For example, the educational systems of Asian countries share many common problems such as budgetary constraints, lack of curriculum renewal, lack of textbooks, lack of trained teachers, and limited access for many of the rural poor and disadvantaged, including women. Educational technology for the poor must be developed. Studies indicate that radio as a medium of instruction could be as effective as conventional methods. Other distance education technologies offer an attractive and cost-effective means of improving education for women and other underprivileged groups, and will, in turn, begin to alleviate the poverty caused by illiteracy and ignorance. (DB)

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TECHNOLOGY IN DISTANCE EDUCATION: FUTURE AND ISSUES

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Keynote Address Delivered
at the International Conference on
Educational Technology: The Future
New Delhi, India, October 31 - 3 November 1990

IR014860

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KEYNOTE ADDRESS

TECHNOLOGY IN DISTANCE EDUCATION: FUTURE AND ISSUES [1/]

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"The technology surrounding communication is advancing while its costs are going steadily down. The time is ripe to take selective advantage of these technological breakthrough to enhance the quality, outreach and cost-effectiveness of basic education."

Federico Mayor
Director-General
UNESCO

DEVELOPMENT AMIDST POVERTY

1. Without vision, the prophets say, a nation perishes. So it is with our global community. As we span the next 10 years towards the 21st century, decisions about our future must be made now. But these decisions must not begin with the traditional approach of designing and specifying physical targets or material wealth. Our global vision must start with the prioritization of the values that ensure the fullest development of mankind. And the value that counts most is one which categorically states that the primary beneficiaries of development decisions ought to be the underprivileged members of developing societies: the poorest and the most destitute and deprived members, namely the rural poor, particularly the children and women. Such an emphasis is urgently needed in the light of today's pervasive culture of poverty. To be specific, the World Bank estimates that about 950 million people in the developing world live in conditions of poverty. Over half live in the populous regions of South Asia (over 350 million) and East Asia (about 150 million). Another 280 million absolute poor live in largely rural areas of sub-Sahara Africa. Even in Europe, Middle East, and North Africa regions, as well as the areas of Latin America and the Caribbean, absolute poverty is estimated to afflict 90 million and 80 million respectively. Indeed, the development theories and strategies through the decades have undergone drastic changes as a result of failures and disappointments.

2. The question is: do development initiatives work? What kind and how? The answer is a qualified yes - at least from the viewpoint of experts, academics and regional

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and international institutions with western growth-model orientations. In the 1950s, the thrusts of development were physical growth with industrialization and urban expansion. In the 1960s, equity was added to growth in attempts to redistribute the benefits of development to the poor and the countryside. In the 1970s the push was for basic needs and services with emphasis on community organization, but the world was running out of resources. In the 1980s the trend was toward environmental protection. What is noticeable about all the development indicators, however, was the primordial position of economists, planners, technocrats, academics, and administrators. Using money as the main yardstick of development, indicators were formulated that govern all growth development measurements today: GNP, PCI, GDP, debt/equity ratio, import/export indicators, etc. In the 1950s and 1960s, when aids and grants from international agencies went mostly to engineering and infrastructure projects, these indicators served their purpose. But they led to some common classifications of countries as First, Second and Third Worlds. But when in the 1970s more investments were poured into human and social capital improvements, things became quite complicated. How was one to apply the neat and clean engineering formulae and ratios to the schooling of illiterate children, food programs for the rural poor, rehabilitation of slum areas and the social diseases that came with squatter colonies, the hospitalization of the aged and now, the mobilization of NGOs to work with the rural poor? Again, the experts mobilized were the public administrators, sociologists, educationists, trainers, statisticians, anthropologists, and community workers. Even if they did come from another line of work different from the engineers, economists, lawyers and accountants, still they came from the rarefied air of the intellectuals and the educated urban sector.

3. But one asks: what about the poor? What do they say? What do the beneficiaries of development think about all these prognostications of the intellectuals? It is apparent that there are technical problems on how to solicit feedback, get practical answers, or opinions from the illiterate, malnourished, dysfunctional, jobless, and the poor. But they count. They are the rationale for programs and projects. They are the reason for donors. The difficulty is, despite the experiences and amount of literature on development available today, there is still tremendous dearth on exactly how to mobilize the poor, and coax them into articulating their inner sentiments, goals and ways of participation.

HUMAN RESOURCE DEVELOPMENT AS THE PRIME STRATEGY

4. And that is why to me, the fundamental strategy for any development must begin and get its greatest momentum from human resources and their full development. If we are to listen to the poor, learn from them, they must be helped to be able to do so. That they are unable to do is not because they are inherently weaker than the educated or the urbanized. Nor less brilliant or capable. The answer is that they have been deprived and have become the victims of social injustice and economic inequities spawned by society and its rulers. Yet all the recent definitions of development explicitly focus on people. Development is viewed as the process which leads to a rise in the capacity of the people to control their environment, accompanied by wider distribution of benefits resulting from such control. In this perspective, man is considered the subject as well as the object of development. One judges development therefore by what it does

to man. Not in terms of number of highways and amount of GNP. But more in terms of the resources for human growth and achievement. For how can one countenance such examples of development as the following: (i) each private car on the road deprives 50 people of good transportation by bus; (ii) the cities in the LDCs are jammed with traffic and cars, yet many poor families flee for their lives in ideological and banditry conflicts in the rural areas of these LDCs; (iii) or Asian doctors studying in New York for special surgery which they apply to only a few elite clients while a large percentage of their own people suffer from tuberculosis, pneumonia, amebic dysentery, etc. There are so many glaring examples like these.

5. But if HRD is the main strategic thrust, then education as we have come to conceive and practice it in the traditional manner will not suffice. My contention is that education must go beyond the confines of conventional schooling so as to include the concept of lifelong learning and learning-to-learn from birth to death. The rigid lockstep cycle of formal schooling, bound to a fixed schedule and series of incremental studies, is making way for the more flexible, self-learning pace of the student so that he too, can be nurtured into a teacher himself. I am of the firm conviction that learning cannot be imported. The indisputable axiom is that the learner learns. No one else can do this job except the student himself. The most important element in the learning process is the beneficiary, the student or the learner himself. Around his needs, capabilities, and aspirations must develop the curriculum and the instructional materials needed to give fresh life and substance to this curriculum.

CHANGE AND EDUCATIONAL DEVELOPMENT

6. Change, wrenching change, has marked the 80s and the 90s. The Middle East dilemma is only one of a series of sweeping changes of our times, not often violent but nonetheless volatile. The socio-political revolution in Russia and the Eastern European states; the peoples' movements in the Philippines, Burma, Nepal, South Korea, and others; mind-boggling developments in computer science, medicine, satellite technology, communications, military armaments, engineering systems, infrastructure networks, and so on, are such manifestations. But in examining this wide array of changes - one is dismayed by the little progress that has been made in the field of traditional education. The entire spectrum is still dominated by pedagogy, fixed schedules and the four walls of classrooms, the blackboard and chalk, the authoritarian figure of the teacher, the one-way flow of ideas and facts, and the passive, insipid, inertia-less reaction of students.

7. Moreover, the educational systems of the countries of Asia share many common problems including rising costs in the face of budgetary constraints, lack of curriculum renewal, lack of textbooks, lack of trained teachers, inadequate level of compatibility between education systems and the world of work; gaps between the supply and demand of teaching aids leading to low quality and low systemic efficiency of education, and very limited access to good education for many groups especially the rural poor and disadvantaged, including women. About 60 per cent of the populations of Asian developing countries live in rural areas. DMCs are finding it difficult to fulfill the goal of universalization of primary education, and are also not able to meet the increasing social demand for education at all levels for all target groups through the formal structures

of education. The illiteracy rate in the region continues to be high and education for all could well remain a distant dream for the region as a whole. Going by present trends, the important features of the socio-economic environment of education development, both quantitative and qualitative, in the 1990s, are likely to include the following: (a) severe financial constraints; (b) continued rapid population growth; and (c) structural changes of the economy, including profound changes of the ways in which the economy functions. Education is considered the foundation and root cause of man's state of development or underdevelopment. The education that developing nations desperately need, and constantly seek, is one which equalizes opportunities for the poor and disadvantaged children and women in particular; and therefore one that must be delivered with efficiency and quality. Technology can help distribute education from all of the world's best sources to all the people irrespective of age, sex, creed, religion, socio-economic status who are in urgent need of education wherever, thus crossing all geographical constraints. Through distance education strategy, specially-tailored programs for each target group can be developed and delivered. Such strategy would bring to their very huts, no matter how deprived, an array of resources that can adequately empower the poor of the Third World and bring new wealth and opportunities to improve their quality of life.

TECHNOLOGY FOR OPENING DOORS OF KNOWLEDGE

8. But first we must break this cycle of slow movement forward. This most important step is towards technology. We are in search of educational technology for the poor. They are the people most in need and who should in any development plan of any country, serve as the primary beneficiaries of educational technology. The technology that works best is determined on the basis of what can be absorbed and not on the basis of what is highly sophisticated. In the context of developing nations, the technology should be compatible to the targeted people's requirements and absorption capacity, client-directed and motivated, cost-efficient, labor-intensive, indigenous as far as possible, and compatible with local culture and environment and with the aspirations of local society. That technology for the poor must be useful, productive and have threshold norm of excellence so that the poor can share in the benefits of modern technology. The depth, range and impact of the right technology can bridge centuries in underdeveloped villages -- the village classroom can be brought to the modern age via sight and sound.

9. In the developing world today, it is a common sight to see farmers and fishermen holding portable radios or cassette players even as they toil in the fields or the seas. Radio is the barest of technologies, operating on batteries, yet it is still within the concept of the term "appropriate technology". Interactive radio system for instruction is a new development in this field. Studies indicate that radio as a medium of instruction could be as effective as conventional methods. Yet still cost cheaper. The economics of educational technology, determined in various empirical studies in several Open University systems around the world, clearly show that radio represents only 1/10 of the cost of TV. With the cost of interactive radio instruction, for example, estimated to be as low as $0.50 a pupil per year, it is hard to believe that other types of intervention to improve quality will be more cost-effective. Furthermore, as we move into the 1990, computers will drop in cost so radically that for some countries they may begin to play a significant role in improving educational quality.

10. Indeed, research evidence shows that the introduction of an appropriate mix of media can produce major improvements in student learning if the media carry a significant part of the instructional load, if serious instructional design underlies the media lessons and if creativity makes instruction interesting to students. By putting adequate effort and investment into the initial crafting of media instruction (particularly radio), effective programs can be delivered widely at very low cost. What is needed is that educators perceive technology as a central tool, not simply as an adjunct but as full partner, to the teacher and the textbook. Therefore educational technology has a historic opportunity to make a difference.

11. Through the use of new communications technologies, access to good educational programs can greatly be extended to large audiences in rural and remote areas with tremendous flexibility in subject matter content, in locations served, and with a choice of narrow or wide band formats. Two new technologies, namely satellite communication and fiber optic cable, have dramatically enhanced educational capabilities, but others such as the VHF terrestrial radio telephone, cellular radio technology and various new mobile communications techniques are making important contributions. Satellite and fibre optic transmission technologies are in fact complementary. Satellites are still best for broadcasting to provide for rural and remote access, while fibre optics are well suited to linking centers of learning, university campuses, etc. Fibre optic-based educational networks can also be "piggy-backed" onto public telecommunications networks at a modest cost. Today the future for educational transmission costs is very promising. Fibre optic cables can now be made for about $1.00 a foot, while micro-terminals complete with microprocessors and printers can be purchased for about $2,000. The fibre-optic line brings in sound and picture quality that antenna-bound TV viewers can only dream of. Within the next 10 years satellite transponders could probably be purchased for as little as $250,000. In short, the reduced costs of technology could make a large number of educational services available, through distance education mode, to more and more people. Where appropriate, we must examine, evaluate and utilize the many new transmission and programming capabilities that are now available from advanced communications technologies especially satellites. Now, the question is not whether developing countries can afford the peaceful uses of outer space. Rather, it is whether they can afford to ignore them. Furthermore, effective coordination through regional cooperation could help realize the potential of such remarkable technologies.

THE EXPANSION OF DISTANCE EDUCATION

12. Corollary to these technological expansions, the area of education which is considered to be fastest growing today is that of distance education. It has been perceived as a powerful means to utilize telecommunications technology for the dissemination of teaching experiences and ideas, information, production of two way exchanges between the teacher and the learner, as well as bridging time and space limitation. This can initiate a process for development of total education mechanism in the 21st century with prominent persons/ specialists where everybody can hear, talk and see the other with inexpensive methods for Third World countries. Distance education has emerged as an alternative system of education. In recent years, distance education through open universities has been catching up in several countries - developed and

developing, socialist and non-socialist.

13. In the 1990s, distance education, based on the use of modern communications and multi-media materials, is predicted to be the major new movement in human resource development. The inherent cost-effectiveness of multi-mediated distance education suggests that this mode of instruction is the best, if not the only available alternative. Furthermore, the scope of satellite-based distance education should be examined in this context since the space system offers vast advantages over that of the terrestrial system, especially when warranted by the appropriate location, area and diversity of the country concerned. Also, the satellite media are ideal for implementing cooperative multi-national programs in distance education.

14. In Asia, during the last decade, indeed, notable projects in distance education involving radio and terrestrial television have been implemented by Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Republic of Korea, Sri Lanka and Thailand. Some countries such as Maldives, Nepal, Pakistan and Philippines can, in view of their geographical nature, further explore the scope for providing satellite links for distance education projects. In a number of countries open universities have already been established. The People's Republic of China (PRC) has accorded an important role to distance education through television, which is for the time being land-based. It would only be a matter of time before satellites are used for education in China, given its fast-developing space capability. PRC has already stated that "in order to have a nationwide television transmission system and to raise the cultural and scientific levels of the broad masses by satellite television education, it is imperative to develop a broadcasting satellite." In April 1984, China placed its first experimental telecommunications satellite into geostationary orbit. Since conventional universities cannot satisfy the growing demand for scientists, engineers and technicians, the Government has decided, among others, to expand the Television University System (TVU). The TVU system, started in the early 1960s, was halted during the Cultural Revolution but resumed in 1979. The TVU enrollment is expected to triple to 1,300,000 students by the end of 1990. The Central Radio and Television University and 28 provincial television universities have been set up; the latter operate over 500 branch schools (with audiovisual centers) and work stations which supervise television classes. In addition to broadcasts, audio-cassettes and booklets are distributed. China plans to double its enrollment in higher-level education by the end of 1990, through rapid expansion of its polytechnics and the Television University. Indeed, effective involvement of the electronic media in distance education calls for effective integration of the media into the courses.

BANK'S INVOLVEMENT IN DISTANCE EDUCATION

15. The Asian Development Bank's initiative in the distance education arena stems from a professional staff paper published by the Education Division (IFED) of the Bank in 1985. This paper laid the ground work for a major Regional Seminar on Distance Education which was organized by the Bank in Bangkok in 1986. The Bangkok Seminar gathered together a group of internationally renowned distance education experts and the papers presented for the Seminar (now published in two volumes) are recognized as a seminar resource in the field. One of the recommendations of the Bangkok Seminar was

to give serious consideration to the establishment of a mechanism for engendering regional cooperation in Distance Education. As a follow-up of this recommendation, the Bank sponsored a Round Table Conference on Distance Education for South Asian Countries in 1989 which was held in Pakistan. The function, form, operational feasibility and financial viability of such a mechanism provided the central agenda of the Round Table Conference. The papers prepared for the Round Table Conference have been published by the Bank in a book form. In addition, the Bank is preparing projects in this sector in Bangladesh, Pakistan and Sri Lanka and is considering increased involvement in other countries.

16. In this connection, there are three complex areas of particular interest in the application of distance education concepts and techniques. This is aside from the general educative functions of administering to teachers, out-of-school populations, and remote rural-based families. These three are: (i) Women-in-Development; (ii) Environmental Protection and Development; and (iii) Poverty Alleviation.

EDUCATING THE WOMEN THROUGH DISTANCE EDUCATION

17. Approximately two-thirds of the world's illiterate adult population are women. The male dominance is illustrated by the fact that there are 80 million more boys than girls enrolled in primary and secondary level of education. In developing countries, two-thirds of women over the age 25 have never been to school. Women are under-represented in positions of educational authority. Positions involving decision- and policy-making at all levels of schooling are invariably held by males. Just as clearly as education is no guarantee against poverty, social injustice and powerlessness, the reality is that wherever these exist, women and girls suffer the most. To organize effectively against these conditions, education is universally perceived as essential. Education can offer relevant resources for the liberation of women which condition is essential to humanizing our environment. Distance education is one such means by which homemakers can reconcile their conflicting needs. Distance education offers formal learning opportunities to people who would not otherwise have access to schooling. In the past, home study was perceived as inferior to conventional schooling. But developments in recent decades of high quality study materials, increasing sophistication in tutorial methods and myriad uses of technology, and access to external resource centers have significantly advanced both the quality and reputation of distance education.

18. The problems for women are abundant. If a husband and wife or a brother and sister are competing for money and other resources required to gain an education, the male will almost certainly be given the first opportunity. Women are seen as needing special protection. Even well-intentioned parents, who may respect their daughter's interest in education will refuse to let her go away from the family for the purpose. At the same time when girls or women do go away from home, at times they suffer distrust from husbands, parents and other relatives. In some cultures, a husband is timid about allowing his wife to attend face-to-face education not so much for safety reasons but more often because of insecurity, jealousy and fear that the wife might become too educated and he may not be able to keep her under control. Also, the lack of child care is a great hindrance to the education of women who are mothers.

19. Distance Education is an approach which is "gender-sensitive". It can take gender into account when it makes a difference and ignore it when it does not, such an ideal allows us to build into curricula, instructional methods, and learning environment ways of dealing with trait genderization and with the many and various other gender-related phenomena that enter into education today. This mode ensures women's access to education which is considered essential for their economic independence. Indeed, it is particularly suitable for women, who continue to be more likely than man to experience severe limitations on their personal time and freedom for a significant period of their adult life.

ENVIRONMENTAL EDUCATION THROUGH DISTANCE EDUCATION

20. Sustainable development of natural resources calls for people's awareness of the environmental problems involved and often assures their cooperation. Given the reach of the print media, it is important to use radio and television to spread the message on environmental matters to the public. In fact, the electronic media may be the only means of reaching vast sections of geographically and economically isolated segments of society. Within the formal and non-formal education system, there is need to use distance education methods for spreading environmental education. The traditional system cannot provide the environmentally relevant lessons as fast and effectively as can be done with distance education methods. It is therefore appropriate to explore the scope for utilizing the new educational technique for spreading the right message on for environmental and natural resource management. Several Asian developing countries have established environmental education and training programs. They have not progressed fast, for want of training and resources. Distance education may be a cost-effective technique for achieving their objective. Formal as well as non-formal education would have an environmental component based on the distance education mode of delivery. The non-formal educational programs would go beyond the student community to the general public, particularly to the segments of society who are directly affected by environmental measures. In this task, the role of radio, and where appropriate TV, will be emphasized, with adequate training and facilities needed to handle the messages.

DISTANCE EDUCATION FOR POVERTY ALLEVIATION

21. What can distance education do for the alleviation of poverty? It can shatter the myth that the poor must first be literate before they can be educated. For distance education can reach the poor man's hovel via radio, and inform and educate him on needed skills and knowledge for livelihood. Without his having to read and write. Through such information, distance education can arouse a sharing of values and ideas among poor families through group radio sessions; better yet through TV assemblies at the village center. It can bring the voices of leaders from their headquarters in the cities to the very doorsteps of the poor, and motivate them with information via broadcast media to help provide the right orientation, attitudes and work ethics, as well as the knowledge and basic skills for self- and family-improvement.

22. The experience indicates that rural development projects strongly prove that it is not enough to simply provide the poor with resources such as credit without the

adequate supporting institution-building and social support services. The poor must be given the opportunity to determine and to govern their own lives and their own future. One of the appropriate principles is empowerment. Empowerment is the process of enabling the poorest of the poor to identify their goals and opportunities, solve their own problems, and through proper organization, gain access to resources and skills to determine and act on their own future by and for themselves. The poor need psycho-social empowerment. They need self-confidence and inner strength to awaken from their inertia. Their attitudes must be changed to enable them to have a more dignified and optimistic vision of themselves and of their worth as human beings. The poor are impoverished not only in physical and economic terms, but more so in self-concept. They lack achievement motivation and self-confidence. They have to be equipped with knowledge and skills in organizing themselves and in using organized resources and shared goals and actions in securing for themselves the most basic goods and services they need to sustain life. This requires nurturing and development of skills of local leaders so they can put together villagers of diverse interests and backgrounds, mobilize them in terms of common problems and common goals, and assist them to act in unity to resolve these problems. Because of lack of education and training, they are unable to optimize the opportunities available to them in their own environment.

23. This bring us to another question: why high-tech for the poor? Why not? Modern science and high-technology can undoubtedly be brought to the service of the disadvantaged man (the poorest of the poor, or the deprived, in the original words of Mahatma Gandhi), to the deprived rural communities, to the most far-flung villages, and achieve a better quality of life for them in ways that are more rapid, more innovative, more interesting and more participatory, than traditional methods of educating people within the four walls of the classroom. The conservative approach which proclaims that sophisticated technology can be adopted only step-by-step by developing countries has often been proven counter-productive as ably explained by the noted Indian scientist, the late Dr. Vikram Sarabhai, who said:

> "...a developing nation following a Step-by-Step approach towards progress is landed with units of Small Size, which do not permit the economic development of new technologies. Through undertaking ventures of uneconomic size with obsolete technologies, the race with advanced nations is lost before it is started."

24. Too often have we proclaimed a so-called Year of Science or the Decade of Excellence, or the Export Surge, or Era of Industrialization. I propose to call the decade of the 1990s the Decade of the Common Man - the peasants, fishermen, out-of-school youth, mountain dwellers and foresters, the handicapped, factory workers, teachers, salesmen and public market vendors, jeepney and tricycle drivers, soldiers, as well as the unemployed, the illiterate and undernourished, prisoners and convicts, and all that are out of the fringes of progress. To them we must address our strategies and energies. For they comprise the majority of our nations.

25. Repetitive as this may sound, the point is that radio, especially if hooked up to satellite communications, can bring information, education, science, culture, as well as

entertainment and religion, to the very huts and grovels of the poor. Across mountains, seas, and uncharted forests in the deepest recesses of the countryside. Whether they are called **Smokey Mountain, or favelas, ranchos, bustees, barriadas, or bidonvilles,** the darkness of these hovels of the poor does not come from lack of electricity - it comes from lack of learning, it comes from the pervasiveness of ignorance. Distance education is precisely the weapon to traverse the distance of geographic and water barriers - and reach and enlighten these huts with the shaft of learning and education.

SOME BASIC ISSUES

26. At times educational technology is compared with instructional industrialism through distance education mode. Here the main issue is that this strategy is founded upon theories of learning which treat students as "objects", passive receivers of advice and knowledge. It is generally believed that the knowledge production of distance education is tightly linked to forms of materials which help legitimatize the dominating/dominated dichotomy between teachers and students. Distance education teachers select and shape the knowledge which the students must learn for success. The principal activity of distance education is "packaging" knowledge in a series of transformative activities in the form of learning packages. The social relations involved in and expressed through their transformative processes are usually invisible to the students. For example, knowledge being packaged on curriculum in family by teachers with different ideologies such as a radical feminist and religious fundamentalist will present curricula in radically different ways from each other and accordingly students' discourses will be shaped differently. Distance education typically allocates little power or space to students to create their own discourses within a curriculum, therefore, they may have little option but to conform to substantial degree or fail. Distance education teachers assume that others need to be guided, checked, cajoled and tested throughout their adult learning. They have failed to recognize and encourage the autonomy of adults over their learning. The issue, therefore, is that these forms of knowledge and communication, and the processes through which these are enacted need to be analyzed in distance education to make it "liberating" rather than "dominating" as it exists today.

27. The pedagogical approaches used in distance education are monologic; dialogue, in most of the situations, is seen as impossible. Distance education uses instructional strategies and processes to marginalize and stop conceptual heart of self-directedness in learning and confines people to a system of learning which reflects and aids the reproduction of the ideological and structural conditions of society. Distance education is becoming bureaucratic and dehumanizing. Thus, distance education strategies need to be further examined to ensure that they recognize and enhance capacities of the learners' for self-direction. Can we really push distance education along this path?

28. The other questions which distance education teachers may like to consider to make distance education liberating are: what sorts of structures of thoughts and feelings do the students use and exhibit in their assignments and teletutorials? What social structures constrain and/or enable their action? How do they exhibit their particular personal characteristics and understandings to achieve their own ends? Answers to these

questions might help in developing new strategies for distance education and facilitate designing of appropriate media systems.

29. This distinguished gathering of experts, I hope, will give their considered views on these and other related issues so that the goals of distance education are clearly set and suitable strategies devised. In addition, the general issues which may be of interest to you are:(i) outlining the future role of distance education in human resource development, poverty alleviation and environmental protection; (ii) identifying strategies for implementing the role outlined in relation to the overall socio-economic goals of countries including education of disadvantaged rural poor (in particular children and women); (iii) designing new models involving modern communication technologies for ensuring the success of people's education through distance education strategy; (iv) developing strategies for ensuring quality of distance education programs, while enlarging its scope to cover the disadvantaged groups of society, such as women, children the rural poor; and (v) preparing appropriate methods of ensuring due academic status to distance education, while retaining its flexibility and relevance to the techno-economic realities including necessary change in curriculum design suitable for the news modes of delivery.

30. The opportunities lie in wait. We must seize them now.